

PRILEZHAYEVA, V.M.; KARAVAYEVA, V.M.; PRILEZHAYEVA, Ye.N.; SHOSTAKOVSKIY, M.F.

Synthesis of sulfur compounds based on vinyl ethers and acetylene.
Report No.15: Free-radical copolymerization of thiovinyl ethers
with some unsaturated compounds. Izv. AN SSSR. Otd. khim. nauk
no.5:650-651 My '57. (MIRA 10:8)

1. Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk
SSSR.

(Polymerization) (Vinyl ether)

AUTHORS: Prilezhayeva, Ye. N., Shostakovskiy, M. F. SOV/62-98-9-14/26

TITLE: Synthesis of Sulfur-Containing Compounds on the Basis of Vinyl Ether and Acetylene (Sintez serusoderzhashchikh veshchestv na osnove vinilovykh efirov i atsetilena)
Communication 16: The Mobility of the β -Alkoxy Groups in Ethylalkyl and Aryl Sulfides (Sobshcheniye 16. O podvizhnosti β -alkoksi-grupp v etilalkil- i arilsul'fidakh)

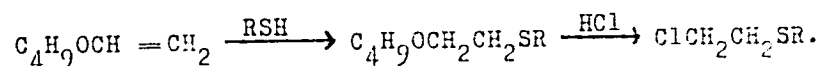
PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1958, Nr 9, pp 1104 - 1110 (USSR)

ABSTRACT: There are many papers dealing with the hydrolysis reactions of β -chloro- and bromo-ethylalkyl (aryl) sulfides and Yperite (dichlorodiethyl sulfide) as well as the substitution reactions involving their halides. There are no papers, except that of Kretov (Ref 7), which deal with the substitution of alkoxy groups in β -alkoxyalkyl sulfides. As a result of their investigations the authors of this paper were able to determine optimal reaction conditions for the preparation of the products (contrary to Markovnikov's rule) of the reaction between vinylalkyl esters and mercaptans. They were also able to prepare with good yield a series

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Synthesis of Sulfur-Containing Compounds on the Basis of $\text{SO}_2/\text{C}_2\text{H}_4/\text{C}_2\text{H}_5\text{SH}$ Vinyl Ether and Acetylene. Communication 16: The Mobility of the β -Alkoxy Groups in Ethylalkyl and Aryl Sulfides

of 1-alkoxy-2-alkyl (aryl) mercaptans. It was shown that in 1-alkoxy-2-alkyl(aryl) mercaptans the alkoxy group can easily be replaced by chlorine. A series of 1-chloro-2-alkyl(aryl)mercaptans were synthesized according to the following general reaction:



It is assumed that the reaction involving the formation of the ethylenesulfo ion occurs, which would then explain the dependence (found in this work) of the ease of exchange of the alkoxy group upon the structure of other parts of the starting (reactant) sulfide. There are 3 tables and 13 references, 5 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy, AS USSR)

SUBMITTED: February 8, 1957
Card 2/2

AUTHORS: Shostakovskiy, M. P., Prilezhayeva, Ye. N., SOV/62-50-10-14/25
Uvarova, N. I.

TITLE: The Synthesis of Sulfur Compounds on the Basis of Vinyl
Ethers and Acetylene (Sintez sernistykh veshchestv na
osnove vinilovykh efirov i atsetilena) Communication 17.
Vinyl Ether of Monothioethylene Glycol (Soobshcheniye 17.
Vinilovyye efiry monotioetilenglikolya)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1958, Nr 10, pp 1245 - 1249 (USSR)

ABSTRACT: In earlier papers (Refs 1,2) it was shown that the
double bond in the α, β position to the sulfur atom
is considerably less active in ion reactions of the
compound and in polymerizations, than the same bond
under the action of the oxygen atom. In the present
paper the authors mention some data on the chemical
behaviour of vinyl ether of monothioethylene glycol. Its
complete vinyl ether is of interest as it contains
in one molecule both types of double bonds. In the
vinylation of monoethylene glycol its S-vinyl ether

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The Synthesis of Sulfur Compounds on the Basis of
Vinyl Ethers and Acetylene. Communication 17. Vinyl Ether of Mono-
thioethylene Glycol

SOV/62-50-10-14/25

is formed in good yield: 1-vinyl mercapto-2-oxy-ethane, which points to the relatively high reactivity (under the conditions of the mercapto group as compared to that of the hydroxyl group). The obtained 1-vinyl mercapto-2-oxy ethane has the same chemical properties of the not substituted thiovinyl ether. In the reaction with ethyl mercaptane (in contrast to other thiovinyl ethers, Refs 1,6) a mixture of the combination products is formed. Under the action of dinitrile of the azoiso butyric acid a polymer is formed with a three-dimensional structure (by partly linking at the expense of the oxy groups, as this polymer can not be dissolved in any of the solvents under review). The authors showed that the double bonds in 1-mercapto-2-vinyl ethane under the action of oxygen and sulfur are characterized by their easy ion reactions especially the reaction of the hydrolysis in acid medium. There are 1 table and 9 references, 6 of which are Soviet.

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The Synthesis of Sulfur Compounds on the Basis of SCV/62-58-10-14/25
Vinyl Ethers and Acetylene. Communication 17. Vinyl Ether of Mono-
thioethylene Glycol

ASSOCIATION: Institut organicheskoy khimii im.N.D.Zelinskogo Akademii
nauk SSSR (Institute of Organic Chemistry imeni N.D.
Zelinskiy AS USSR)

SUBMITTED: February 8, 1957

Card 3/3

AUTHORS: Shostakovskiy, M. F., Prilezhayeva, Ye. N., SOV/62-06-10-15/25
Karavayeva, V. M.

TITLE: Synthesis of Sulfur Compounds From Vinyl Ethers and
Acetylene(Sintez sernistykh veshchestv na osnove vinilo-
vykh efirov i atsetilena)Communication 18. S-Vinylmercapto-
benzothiazole(Soobshcheniye 18. S-vinilmerkaptobenzotiazol)

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1958, Nr 10, pp 1250 - 1253 (USSR)

ABSTRACT: The authors were interested in synthesizing vinyl
sulfides having nitrogen atoms in the molecule, as well
as to study their properties. Mercapto benzothiazole
"Captax" which in the crystalline state has the thion
form, at higher temperatures, however, and in alkaline
medium easily passes over into the thiol form was
chosen as initial compound of the synthesis. S-vinyl
mercapto benzothiazole was produced by the action
of acetylene on captax. Besides, potassium mercapto
benzothiazole was separated from the reaction mixture.
Potassium mercapto benzothiazole was used as catalyst

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Synthesis of Sulfur Compounds From Vinyl Ethers and Acetylene. Communication 18. S-Vinylmercaptobenzothiazole SOV/62-98-10-15/25

by which fact the yield of the vinylation product could be increased. In the vinylation the corresponding mercaptide occurs as catalyst, with the reaction of acetylene with the mercaptide ion determining the velocity of the process. The other reactions of vinyl mercapto benzothiazole are similar to the reactions of aliphatic thiovinyl ether. Finally the authors discussed the transformations of S-vinyl mercapto benzothiazole, as the reaction of S-vinyl mercapto benzothiazole and sublimate as well as the formation of β -ethyl mercapto-S-ethyl mercapto benzothiazole. There are 3 tables and 9 references, 4 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im.N.D.Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N.D. Zelinskiy AS USSR)

SUBMITTED: February 22, 1957
Card 2/2

11(4)

RUSSIAN BOOK EXPLANATIONS

800/8075

Академия наук СССР. Научно-техническая литература.

Книга, посвященная химии серы, азота и фосфора. (Химия серы, азота и фосфора. Научно-техническая литература. Академия наук СССР, 1979. 376 с. 2,000 копий тиражом. Книга в 2-х частях. Вторая часть не издана.)

Редакция: Р.Д. Колосов (Иркутск, ИЛ) Доктор химических наук, профессор, кандидат технических наук; В.А. Колосов, доктор химических наук, кандидат технических наук; В.П. Колосов, кандидат технических наук; В.П. Колосов, кандидат технических наук; В.П. Колосов, кандидат технических наук.

ПРЕДИСЛОВИЕ. Эта книга предназначена для химиков, инженеров и техников, работающих в области химии серы, азота и фосфора. Книга является сборником статей, посвященных химии серы, азота и фосфора. В ней содержатся сведения о свойствах, реакциях и применении этих элементов и их соединений. Книга предназначена для широкого круга читателей, интересующихся химией.

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Chemistry of Sulphur Organic Compounds (Cont.)

800/8075

Михайлов, И.А., В.В. Колосов, Ю.П. Колосов, М.С. Зархин.

Effect of Organic Sulphur Compounds on the Low-Temperature

Properties and Oxidizability of Kerosene-Jet Oil Fractions

Михайлов, И.А. Some Properties and Experience With the Use of

Heat-Resistant Iron-Chromium Alloy No. 2 in a High-Temperature

Pyrolytic Process

Михайлов, И.А., В.В. Колосов, Ю.П. Колосов, М.С. Зархин.

Synthesis and Transformations of Sulphur-Containing Vinyl Compounds

Михайлов, И.А., Л.К. Яснова. Industrial Extraction and Uses of Organic

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SHOSTAKOVSKIY, M.F.; PRILEZHAYEVA, Ya.N.; KARAVAYEVA, V.M.

Synthesis of sulfur compounds from vinyl ethers and acetylene.
Part 19: Role of thionic complexes in the ionic polymerization
of sulfur-containing vinyl compounds. Vysokom.sped. 1 no.4:582-
582-589 Ap '59. (MIRA 12:9)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo.
(Polymerization) (Vinyl compounds)

SHOSTAKOVSKIY, M.F.; PRILEZHAYEVA, Ye.N.; KARAVAYEVA, V.M.

Synthesis of sulfur compounds from vinyl ethers and acetylene.
Part 20: Interaction of mercaptals with vinyl sulfides and vinyl
ethers. Vysokom.soed. 1 no.4:590-593 Ap '59.
(MIRA 12:9)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo.
(Sulfur compounds) (Vinyl compounds)

SHOSTAKOVSKIY, M.F.; PRILEZHAYEVA, Ya.N.; KARAVAYEVA, V.M.

Synthesis of sulfur compounds from vinyl ethers and acetylene.
Part 21: Ionic copolymerization of vinyl sulfides with styrene
and vinylbutyl ether. Vysokom soed. 1 no.4:594-596 Ap '59.
(MIRA 12:9)

1. Institut organicheskoy khimii AN SSSR im. N.D.Zelinskogo.
(Polymerization) (Sulfur compounds)

SHOSTAKOVSKIY, M.F.; PRILEZHAYEVA, Ye.N.; KARAVAYEVA, V.M.

Determination of relative activity coefficients in copolymerization of vinylthiolsulfide with styrene and methylmethacrylate.
Vysokom.sped. 1 no.5:781-783 My '59. (MIRA 12:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo.
(Sulfide) (Styrene) (Methacrylic acid)

67037

5.383/
~~5(1), 5(3)~~
AUTHORS:

Shostakovskiy, M. F., Prilezhayeva, Ye. N., SOV/153-2-5-22/31
Karavayeva, V. M.

TITLE: Synthesis and Polymerization¹ of Vinyl Sulfides¹

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya
tekhnologiya, 1959, Vol 2, Nr 5, pp 761 - 768 (USSR)

ABSTRACT: At the Laboratory for Vinyl Compounds of the Institute in which the authors work, the synthesis methods and the chemical changes of vinyl compounds, which contain, besides double bonds such hetero atoms as O, S, N, Si, etc, have been studied for several years. The present paper gives a review on the studies of the synthesis of monomers of this group containing sulfur, some of their reactions, the polymerization and the copolymerization. A general method of synthesis was developed (Ref 5) based on a modification of the vinylization reaction according to A. Ye. Favorskiy and M. F. Shostakovskiy (1) (Ref 6). An excess of acetyls still remains to be a necessary condition. The vinylization of mercaptanes yields several advantages (Refs 7,9,10). From alkyl-mercaptanes and di-acetyls (Refs 11,12) it is possible to obtain the corresponding alkyl-thio-butenine (Equation (3), Table 1) at 30-50°C, in a methanol medium and in the presence of

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Synthesis and Polymerization of Vinyl Sulfides

2-3% of KOH. The authors developed, instead of the acid hydrolysis to the acetaldehyde and a titration of the latter, the splitting of the vinyl sulfides by an alcoholic sublimate solution as a method for quantitative determination (Refs 7,8) (4). This reaction (4) is also suited for alkyl-thio-butenines (Refs 11,12). The authors also established the conditions of the selective sulfur oxidation in vinyl-alkyl sulfides in which vinyl sulfoxides or vinyl sulfones form (Table 2). These can be used as starting substances for polymerization (5). The introduction of the sulfur increases the dielectric properties of the polymer (Ref 19) and its thermoplasticity (Ref 16). By introducing the sulfone groups, the benzo-resistance increases (Ref 20). It was observed that vinyl sulfides have less inclination to kationic polymerization under the influence of metal halides, but they easily form polymers under the influence of a suitable free-radical initiator. The best yield of ionic polymers was obtained in the presence of tri-boron-fluoride-ethyrate (Ref 21). The polymers are viscous oils. For the determination of their molecular weight, titration of the thio-vinyl terminal groups by sublimate was used besides cryoscopy (see also above). Good accordance confirms the structure of the terminal groups

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Synthesis and Polymerization of Vinyl Sulfides

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to be $-\text{CH}=\text{CHSR}$. Table 3 shows the fractionation of a sample of polyvinyl-ethyl sulfide. Tables 4 and 5 illustrate the conditions of polymerization of vinyl sulfides in the presence of free-radical initiators and the properties of the polymers obtained. The best yields were obtained with dinitrile of the azoisobutyric acid. Benzoyl-peroxide cannot be used in this case (Ref 23). No thione groups form on introduction of a free radical and the terminal groups of the polymers have also the character of a thio-vinyl (7). 12 pairs of monomers containing vinyl sulfides were studied on copolymerization. The properties of the copolymers are also studied. Table 6 shows the polymerization of the vinyl-ethyl sulfone. The rules established can be explained in view of the reciprocal influence of the $\text{C}=\text{C}$ linkage and the sulfur atom in the vinyl-sulfide molecule. There are 6 tables and 31 references, 24 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii AN SSSR im. N. D. Zelinskogo
(Institute of Organic Chemistry of the Academy of Sciences,
USSR imeni N. D. Zelinskiy)

Card 3/3

5(3)

AUTHORS:

Shostakovskiy, M. F., Prilezhayeva, Ye. N., SOV/62-59-5-22/40
Gershteyn, N. A., Karavayeva, V. M.

TITLE:

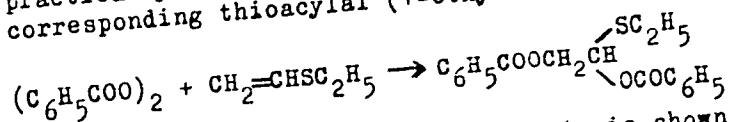
The Synthesis of Sulfurous Substances on the Basis
of Vinyl Ethers and Acetylene (Sintez sernistykh
veshchestv na osnove vinilovykh efirov i atsetilena).
Report 22. On the Reaction of Vinyl-ethyl Sulfide With
Benzoyl Peroxide (Soobshcheniye 22. O reaktsii
viniletilsul'fida s perekis'yu benzoila)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,
1959, Nr 5, pp 904-909 (USSR)

ABSTRACT:

The reaction mentioned in the subtitle is investigated. It
develops strictly exothermically and begins without
previous heating, the reaction product being formed
practically completely from the initial product: The
corresponding thioacylal (1-ethylmercapto-1.2 dibenzoate ethane)



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The character of the reaction products is shown by table 1.

The Synthesis of Sulfurous Substances on the Basis
of Vinyl Ethers and Acetylene. Report 22. On the
Reaction of Vinyl-ethyl Sulfide With Benzoyl Peroxide

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The reaction is so rapid that no polymerization of the vinyl-ethyl sulfide cannot take place. The benzoyl peroxide can therefore not be used as initiator for this polymerization. The simple radical may, however, lead to a slow low polymerization of the vinyl sulfide (system of equations 2 - 7) which develops in form of a chain reaction. Furthermore, it was possible to carry out polymerization with ditertiary butyl peroxide also with formation of low-molecular polymers. It was, however, not possible to obtain affiliation products. In the experimental the individual syntheses and reactions are described. There are 2 tables and 14 references, 7 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

SUBMITTED: July 30, 1957
Card 2/2

5.3620

77039
SOV/62-59-12-33/43

AUTHORS: Shostakovskiy, M. F., ~~Prilezhayeva, Ye. N.~~, Tsymbal, L. V., Azovskaya, V. A., Starova, N. G.

TITLE: Brief Communication. Concerning Addition of Nucleophilic Reagents to α, β -Unsaturated Sulfones in Presence of "Triton B"

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 12, pp 2239-2241 (USSR)

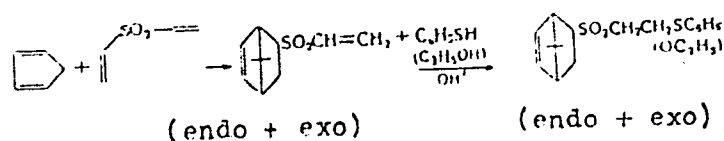
ABSTRACT: Addition of nucleophilic reagents (alcohols, mercaptans, hydrogen sulfide, dialkyldithiophosphoric acids, etc.) to α, β -unsaturated sulfones of various structures is catalyzed to a great extent by "Triton B" (benzyltrimethylammonium hydroxide). The addition reaction starts upon addition of a few drops of "Triton B" (40-60% aqueous solution, 0.2-0.5% by weight) to an equimolar mixture of reacting substances. In most cases the reaction is exothermic (temperature rises up to 80-100°) and is completed within 2-3 hr, with a nearly quantitative yield. α, β -Unsaturated sulfones,

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Brief Communication. Concerning Addition
of Nucleophilic Reagents to α, β -
Unsaturated Sulfones in Presence of "Triton
B"

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having other unsaturated bonds in the molecule (e.g.,
endo- and exovinyl bicycloheptenyl sulfones, obtained
by reaction of cyclopentadiene with divinyl sulfone),
add alcohol or mercaptan under these conditions only
at the unsaturated bond activated by sulfone group:



Disulfones, having two unsaturated bonds, add two
mercaptan molecules. Table 1 lists the yields and
physical constants of the addition products (eight of
them prepared to the first time) obtained by the authors.

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Brief Communication. Concerning Addition
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Unsaturated Sulfones in Presence of "Triton
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TABLE 1

FORMULA	YIELD IN %	bp in °C (pressure in mm)	mp (°C)	FOUND %			CALC %		
				C	H	S	C	H	S
$C_8H_{10}SO_2C_2H_4SC_2H_4^{**})$	85,4	147—148,5 (3)	35—36	39,82	7,75	34,93	39,53	7,74	35,17
$C_8H_{10}SO_2C_2H_4SC_2H_4^{**})$	99	—	32—33	42,93	8,22	32,42	42,82	8,21	32,66
$C_8H_{10}SO_2C_2H_4SC_2H_4^{**})$	98	—	40—41	45,44	8,62	30,57	45,68	8,62	30,48
$C_8H_{10}SO_2C_2H_4SC_2H_4^{**})$	90	—	56	54,04	6,04	29,10	54,06	6,60	28,24
$C_8H_{10}SO_2C_2H_4SCH_2C_2H_4^{**})$	90	124—125 (0,04)	39—40	52,05	6,03	27,68	52,14	6,12	27,90
$C_8H_{10}SO_2C_2H_4SC_2H_4^{**})$	90	—	42—43	34,78	7,46	22,94	34,76	7,49	23,20
$C_8H_{10}SO_2C_2H_4OH$	91	125—130 (4)	—	43,40	8,42	19,30	43,39	8,49	19,29
$C_8H_{10}SO_2C_2H_4OC_2H_4^{**})$	89,6	110—116,5 (0,5)	—	49,37	9,37	16,44	49,45	9,34	16,50
$C_8H_{10}SO_2C_2H_4OC_2H_4^{**})$	—	114—116 (0,03)	—	33,43	7,77	17,66	39,54	7,74	17,60
$C_8H_{10}SO_2C_2H_4OCH_2CH_2OH^{**})$	Cyan. 85,4 85	188—190 (0,03)	—	39,55	7,33	21,19	39,71	7,33	21,21
$(C_8H_{10}SO_2C_2H_4OCH_2CH_2^{**})$		—	108—109	35,40	6,79	34,82	35,01	6,61	35,05
$(C_8H_{10}SO_2C_2H_4S^{**})$	34—43	133—137 (0,04)	—	31,46	6,18	31,43	31,35	6,25	31,40
$(C_8H_{10}SO_2C_2H_4SP(S)OC_2H_4^{**})$				—	—	—	—	—	—

(CONT.)

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TABLE 1 (cont.)

FORMULA	YIELD %	bp in °C (PRESSURE IN mm)	mp (°C)	FOUND %			CALC %		
				C	H	S	C	H	S
 $\text{SO}_2\text{C}_2\text{H}_4\text{OC}_2\text{H}_5$ ^(*) (ЭНДО + ЭКСО)	Сумм. 94	85-85,5 (0,03) 95-97 (0,03)	— —	56,95 57,53	8,06 8,01	13,93 14,04	57,36	7,88	13,92
 $\text{SO}_2\text{C}_2\text{H}_4\text{SC}_2\text{H}_5$ ^(*) (ЭНДО + ЭКСО)	Сумм. 86	— —	33 47	— 61,32	— 6,27	21,50 21,70	61,06	6,13	21,74
$\text{C}_6\text{H}_5\text{SO}_2\text{CH}_2\text{CH}=\text{CHCH}_2\text{SO}_2\text{C}_2\text{H}_4$ ^(*) $\text{SC}_2\text{H}_4\text{SC}_2\text{H}_5$	84	—	112-113	56,53	6,66	24,81	55,99	6,66	24,92

Notes: * Obtained for the first time. ** In the literature [Lorenz, W., Pat. FRG (Federal Republic of Germany), 876691 (5/18/1953); Referat. Zhur. Khim., Nr 32864 (1955)], it is described as a compound, liquid at room temperature, bp 127-129° (2 mm). *** Literature [Moore, A. H. Ford, J. Chem. Soc., 1949, 2433], mp 36-38°. **** Found: P 9.62; 10.00%. Calculated: P. 10.11%. In the literature [Thompson, R. B., Cheniceck, J. A., Symon, T., J. Ind. Eng. Chem., 50, 797 (1958)] it is described as "nonvolatile residue".

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Brief Communication. Concerning Addition
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Unsaturated Sulfones in Presence of "Triton
B"

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There is 1 table; and 6 references, 2 Soviet, 1 German,
1 U.K., 2 U.S. The U.K. and U.S. references are: A. H.
Ford, Moore, J. Chem. Soc. 1949, 2433; J. L. Szabo,
E. T. Stiller, J. Amer. Chem. Soc. 70, 3667 (1948); Ch.
D. Hurd, L. L. Gershbein, J. Amer. Chem. Soc. 69,
2328 (1947); R. B. Thompson, J. A. Cheniceck, T.
Symon, J. Industr. and Engng. Chem., 50, 797 (1958).

ASSOCIATION: N. D. Zelinskiy Institute of Organic Chemistry of the
Academy of Sciences, USSR (Institut organicheskoy
khimii imeni N. D. Zelinskogo Akademii nauk SSSR)

SUBMITTED: May 4, 1959

Card 5/5

S/079/60/030/04/13/000
B001/B016

5.3831

AUTHORS:

Shostakovskiy, M. F., Prilezhayeva, Ye. N.,
Azovskaya, V. A., Dmitriyeva, G. V.

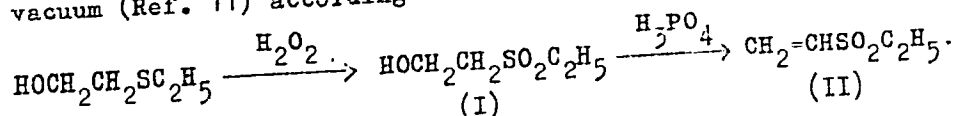
TITLE:

Investigations in the Field of Sulfones and Sulfoxides.
I. Synthesis of Vinyl Ethyl Sulfone and Some of Its
Transformations

PERIODICAL:

Zhurnal obshchey khimii, 1960, Vol. 30, No. 4,
pp. 1123-1130

TEXT: The data available on the reactivity of low vinyl alkyl sulfones
(Refs. 1-10) under the influence of ionic and free-radical initiation
are not clear. In order to clarify this problem, vinyl ethyl sulfone
was taken as initial product. It was synthesized by dehydration of 2-
hydroxy-diethyl sulfone (I) with phosphoric acid at 260-270° in the
vacuum (Ref. 11) according to the scheme



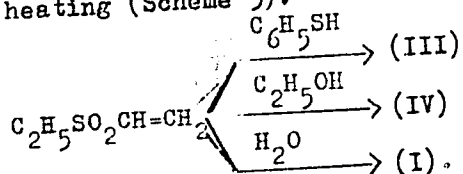
Card 1/3

607511

S/079/60/030/04/13/080
B001/B016

Investigations in the Field of Sulfones and Sulfoxides. I. Synthesis of Vinyl Ethyl Sulfone and Some of Its Transformations

The yield in pure sulfone (II) was 70-75%; it contained no sulfoxides. The dehydration method is far more convenient than the widely used dehydrochlorination method (Refs. 1, 2a, 3, 4, 6, 10) (Scheme 2). "Triton B" was used as the initiator of the ionic reactions of vinyl ethyl sulfone (II); the reaction proceeded smoothly and quantitatively on intense heating (Scheme 3):



2-5 2 $\xrightarrow{H_2O}$ (I).

The attempt of polymerizing vinyl ethyl sulfone under the influence of free-radical initiators gave polymers in fair yield on prolonged heating (Polymerization Schemes). Vinyl ethyl sulfone shows a high dienophilic activity, and yields adducts with cyclopentadiene, hexachloro cyclopentadiene, and chloroprene. The table shows the polymerization of vinyl ethyl sulfone at 60° for 60 h. There are 1 table and 20 references, 4 of which

Card 2/3

Investigations in the Field of Sulfones and
Sulfoxides. I. Synthesis of Vinyl Ethyl
Sulfone and Some of Its Transformations

S/079/60/030/04/13/C&C
B001/B016

are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR
(Institute of Organic Chemistry of the Academy of
Sciences, USSR)

SUBMITTED: June 22, 1959

Card 3/3

S, 079/60/030/009, 022/022, 11
B001/B066

AUTHORS: Shostakovskiy, M. F., Prilezhayeva, Ye. N., Tolstaya, L. G.
and Stolyarova, L. G.

TITLE: Stereochemistry of Addition Reactions to the Triple Bond

PERIODICAL: Zhurnal obshchey khimii. 1960, Vol. 30, No. 9.
pp. 3143 - 3144

TEXT: There are no data available in publications on the stereochemistry of addition reactions of any reagents to the triple bonds of diacetylene or vinyl acetylene systems, nor on the stereochemistry of the reactions of homolytic addition of thiols to acetylenes. The authors indicate that the stereochemistry of reactions of diacetylene (I) with alkyl thiols (II) giving 1-alkyl-thiobuten-1-ines-3 (III) investigated previously by them, as well as of reactions of compounds (III) with (II) giving the 1,4-dialkyl-thiobutadienes-1,3 (IV), take place according to the scheme given here. The geometric structure (IV) follows from the sulfone structure (V) which was confirmed by means of

Card 1/3

Stereochemistry of Addition Reactions
to the Triple Bond

S/079/60/030/009/022/022/XX
B001/B066

dipole moments, ultraviolet and infrared spectra, as well as by quantitative isomerization of the cis-cis and cis-trans compounds (V) into the trans-trans compounds (V), under the action of iodine. Thus, the thiols add stereospecifically in nucleophilic reactions with the C≡C bonds, both in diacetylene and vinyl acetylene systems, according to the rule of "trans-addition" (Ref. 2). Under free radical conditions the reaction does not proceed quite stereoselectively, so that mixtures of cis-cis and trans-trans isomers (IV) are formed at low temperatures. The predominance of (IV) indicates a high specific gravity of the cis addition of the radicals. At elevated temperatures, isomerization to the trans-trans compound (IV) occurs. It was also found that the reaction of ethanethiol with ethyl-thio ethine (VI) (Ref. 3) proceeds stereospecifically both under free radical and ionic conditions, and obeys the rule of "trans-addition", since (VII-cis) is the main product yielding the sulfone (VIII-cis). Under free radical conditions, thiols may react with various acetylene compounds stereospecifically in different ways. This is always due to the stability of one of the geometrical forms of the radical RSCH₂CX which appears

Card 2/3

1
Stereochemistry of Addition Reactions
to the Triple Bond

S/079/60/030/009/022/022/KX
B001/B066

as an intermediate. An analogous phenomenon of homolytic addition reactions of bromine and hydrogen bromide to acetylene was described in Ref. 4. There are 4 references: 2 Soviet, 2 US, and 1 Italian

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR
(Institute of Organic Chemistry of the Academy of
Sciences USSR)

SUBMITTED: May 30, 1960

Card 3/3

ИЗВЕСТИЯ АКАДЕМИИ НАУК СССР

Synthesis of β -aryldiethylsulfoxides. Izv. Sib. otd. AN
(1976) 14:16

Chemistry of the Institute of Chemistry and Technology of the Siberian Federal University
(S. I. Ikonnikov)

SHORYGIN, F.P.; SHOSTAKOVSKIY, M.F.; PRILEZHAYEVA, Ye.N.; SHKURINA, T.N.;
STOLYAROVA, L.G.; GENICH, A.P.

Structure and spectra of vinyl sulfides. Izv. AN SSSR. Otd.khim.nauk
no.9:1571-1577 S '61. (MIRA 14:9)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Vinyl sulfide--Spectra)

KALABINA, A.V.; PRILEZHAYEVA, Ye.N.; YAKOVLEVA, Z.I.

Synthesis and transformations of vinyl aryl ethers. Report
No.18: Addition of mercaptans to vinyl ethers of the aromatic
series. Izv. Fiz.-khim. nauch.-issl. inst. Irk. un. 5 no.1:
193-206 '61. (MIRA 16:8)

(Ethers)

(Thiols)

PRILEZHAYEVA, Ye.N.; TSYMBAL, L.V.; SHOSTAKOVSKIY, M.F.

Sulfoxides and sulfones. Part 2: Stereochemistry of the addition of thiols to triple bonds of diacetylene and 1-alkyl-1-thiobuten-3-yne and properties of isomeric 1,4-dialkylsulfonyl-1,3-butadienes. Zhur.ob.khim. 31 no.8:2487-2496 Ag '61. (MIRA 14:8)

1. Institut organicheskoy khimii im. N.D. Zelinskogo Akademii nauk SSSR.
(Butadiyne) (Butenyne) (Butadiene)

SHOSTAKOVSKIY, M.F.: PRILEZHAYEVA, Ye.N.; TSYMBAL, L.V.;
TOICHINSKAYA, R.Ya.; STAROVA, N.G.

Sulfones and sulfoxides. Part 3: Comparative reactivity
of α , β -unsaturated sulfoxides and sulfones to nucleophilic reagents.
Zhur.ob.khim. 31 no.8:2496-2503 Ag '61. (MIRA 14:8)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Sulfoxide) (Sulfone)

S/020/61/138/005/018/025
B103/B220

25318

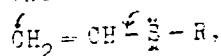
5.3620

AUTHORS: Prilezhayeva, Ye. N., Tsymbal, L. V., and Shostakovskiy, M. F.,
Corresponding Member AS USSR

TITLE: Comparative dienophilic reactivity in the series: vinyl
sulfide-vinyl sulfoxide-vinyl sulfone

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 138, no. 5, 1961, 1122-1125

TEXT: In previous papers, it was proved by the authors that the electro-
philic nature of the double bond in the series of sulfur-containing vinyl
compounds increases from vinyl sulfide over vinyl sulfoxide to vinyl
sulfone. In ionic reactions, reagents add to vinyl-alkyl sulfides in the
presence of acid catalysts in strict accordance with Markovnikov's rule
(M. F. Shostakovskiy et al. Ref. 1: Izv. AN SSSR, OKhN, 1955, 154;
Sintez i nekotoryye svoystva tiovinilovykh efirov (synthesis and some
properties of thiovinyl ester), N. I. Uvarova, Kand. dissertatsiya
(candidate's thesis), IOKh AN SSSR, 1953). Therefrom the authors conclude
that the sulfur atom in these vinyl compounds acts as an electron donor:



Card 1/5

Comparative dienophilic reactivity ^{2531A}S/C20/01/134/005/010/025
B/C3/B220

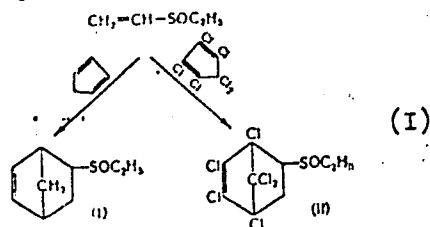
and that the double bond shows nucleophilic character just like that in oxygen vinyl esters. The HX reagents add to vinyl sulfoxides and sulfones merely under the influence of alkaline catalysts. Thereby, only $\text{RSOCH}_2\text{CH}_2\text{X}$ or $\text{RSO}_2\text{CH}_2\text{CH}_2\text{X}$ compounds are formed, and the associative activity of the nucleophilic reagent and, consequently, the electrophilic nature of the double bond increase from sulfoxide to sulfone. This indicates that the sulfonyl group is a much better electron acceptor than the sulfinyl group. The authors studied the variations of the reactivity of this series of compounds when used as dienophiles with one and the same diene. Cyclopentadiene (CP) and hexachlorocyclopentadiene (HCCP) were chosen as dienes. Up to the present, next to nothing has been known about the reactivity of vinyl-ethyl sulfoxide and, moreover, about the reactions occurring in the synthesis of diene in the presence of α,β -unsaturated sulfinyl compounds. The authors effected reactions between vinyl-ethyl sulfide, sulfoxide, and sulfone on the one hand, and CP or HCCP on the other, the conditions being as comparative as possible. They concluded from the results that the dienophiles mentioned from two reverse series with CP and HCCP. As CP contains electropositive H atoms besides a diene system, reacts exothermically with vinyl-ethyl sulfone, and requires a

Card 2/5

25318
Comparative dienophilic reactivity...

S/020/61/138/005/018/025
B103/B220

longer heating with vinyl-ethyl sulfide, it may be seen that the activity for $\text{CH}_2=\text{CHX}$ increases in the order $\text{X}=\text{RS} < \text{RSO} < \text{RSO}_2$. With HCCP which has an electronegative chlorine at the double bond, the opposite dependence is found: $\text{X}=\text{RS} > \text{RSO} > \text{RSO}_2$; here, vinyl-ethyl sulfide exhibits the highest reactivity. It is concluded that the activity of diene synthesis depends on the interrelations between the polarization of the double bonds of diene and dienophile rather than on the character of polarization of the double bond of the dienophile. Thus, HCCP is bound to be active for dienophiles having electron donor substituents, whereas CP is active for dienophiles having electron acceptor substituents. The authors obtained only monoadducts of vinyl-ethyl sulfoxide (I,II) with both HCCP and CP

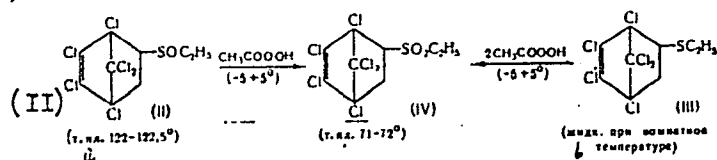


Card 3/5

Comparative dienophilic reactivity...

S/020/61/138/005/018/025
B103/B220

On reaction with CP a mixture of crystalline and liquid (I) is formed at a ratio of about 3:1. Apparently, the higher melting product has an endo-configuration, and Alder's rule is followed in this reaction. (II) is formed on reaction with HCCP; it has a definite melting point which is not changed by recrystallization. This indicates a steric homogeneity of (II). The adducts obtained from HCCP and vinyl-ethyl sulfide (III) as well as sulfoxide (II) give the same product (IV) as obtained from HCCP and vinyl-ethyl sulfone, under conditions excluding isomerization



(where a) melting point; b) liquid at room temperature). Recently, it has been proved by the authors and V. A. Azovskaya et al. (Ref. 11: ZhOKh, 31, No. 6 (1961)) that the reaction of divinyl sulfone with HCCP results in an exoadduct as primary product. In their opinion, the reason for this deviation from Alder's rule is the thermal isomerization of the corre-

Card 4/5

25118
Comparative dienophilic reactivity...

S/020/61/138/005/018/025
B103/B220

sponding endo-monoadduct to an exo-monoadduct. Apparently, the same rule holds in the present case. The adduct of vinyl-ethyl sulfide (III) (synthesized at room temperature) undergoes complete isomerization during fractionation of the reaction mixture. There are 1 table and 11 references: 8 Soviet-bloc and 3 non-Soviet-bloc. The two references to English-language publications read as follows: Ref. 7: K. Alder, XIV Intern. Congr. of Pure and Applied Chemistry, 1955; Ref. 9: Allen. J. Am. Chem. Soc., 62, 656 (1940).

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: February 14, 1961

Card 5/5

PRILEZHAYEVA, Ye.N.; PETUKHOVA, N.P.; SHOSTAKOVSKIY, M.F.

Electrophilic addition of thioacetic acid to vinyl ethers.
Izv.AN SSSR Otd.khim.nauk no.4:728-729 Ap '62. (MIRA 15:4)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Ethers) (Acetic acid)

PRILEZHAYEVA, Ye.N.; TSYMBAL, L.V.; SHOSTAKOVSKIY, M.F.

Addition of diethyldithiophosphoric acid to vinylaryl sulfides and vinyl ethers. Izv.AN SSSR.Otd.khim.nauk no.9:1679-1681 S '62.
(MIRA 15:104)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Phosphorodithoic acid) (Sulfides) (Ethers)

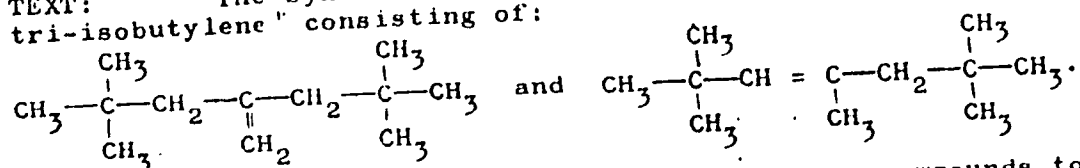
S/204/62/002/005/004/007
E075/E136

AUTHORS: Shostakovskiy, M.F., Prilezhayeva, Ye.N., and Mer, L.N.

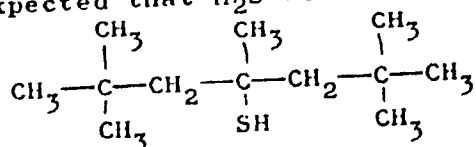
TITLE: Synthesis and properties of tertiary dodecanethiol from tri-isobutylene

PERIODICAL: Neftekhimiya, v.2, no.5, 1962, 735-738

TEXT: The synthesis was carried out from "Butlerov tri-isobutylene" consisting of:



It was expected that H₂S would combine with these compounds to form



The best catalyst for this reaction was BF₃·H₃PO₄. The
Card 1/2

Synthesis and properties of tertiary... S/204/62/002/005/004/007
E075/E136

isobutylenes were agitated for 45 hours with an excess of liquid H_2S released from a sealed ampule and 40% $BF_3 \cdot H_3PO_4$ (in H_3PO_4) under 15-17 atm in an autoclave. The maximum yield of the thiol was 30-40%. Its vinyl derivative was prepared by heating to 145 °C with acetylene for 3 hours in the presence of powdered KOH in dioxane.
There is 1 table.

ASSOCIATION: Institut organicheskoy khimii AN SSSR im.
N.D. Zelinskogo
(Institute of Organic Chemistry AS USSR
imeni N.D. Zelinskiy)

SUBMITTED: April 19, 1962

Card 2/2

SHOSTAKOVSKIY, M.F.; PRILEZHAYEVA, Ye.N.; SVIRIDOVA, A.V.

Polymerization of vinyl ethyl sulfone under the effect
of free radical initiating agents. Dokl. AN SSSR
146 no.4:837-839 0 '62. (MIRA 15:11)

1. Institut organicheskoy khimii im. N.D. Zelinskogo
AN SSSR. 2. Chlen-korrespondent AN SSSR (for Shostakovskiy).
(Sulfones) (Polymerization)
(Radicals (Chemistry))

PRILEZHAYEVA, Ye.N.; SHOSTAKOVSKIY, M.F.

"Thiolation" reactions of ethylene derivatives. Usp.khim. 32
no.8:897-947 Ag '63. (MIRA 16:9)

1. Institut organicheskiy khimii AN SSSR imeni Zelinskogo.

GAL'PERN, G.D., doktor khim. nauk; PRILEZHAYEVA, Ye.N., doktor khim. nauk

International symposium on the chemistry of sulfur organic
compounds in Czechoslovakia. Vest. AN SSSR. 34 no.11:100
N '64. (MIRA 17:12)

PRILEZHAYEVA, Ye.N.; PETUKHOVA, N.P.; SHOSTAKOVSKIY, M.F.

Reaction of ~~chloroacetic~~ acid with vinyl esters. Dokl. AN SSSR
154 no.1:160-163 Ja'64. (MIRA 17:2)

1. Institut organicheskoy khimii im N.D. Zelinskogo AN SSSR.
2. Chlen-korrespondent AN SSSR (for Shostakovskiy).

PRILEPCHAYEVA, Ye. N.; b. 1925, T.S.S.; ex. 1947, T.S.S.

Like other members of family, she was a member of the
Komsomol and was a member of the T.S.S. in 1947.

PRILEZHAYEVA, Ye.N.; AZOVSKAYA, V.A.; TITOMAN, L.V.; GURAYEV, Ye.N.;
ANDRIANOVA, G.; SHOSTAKOVSKIY, N.P.

Diene condensation of divinyl sulfone, sulfoxide, and sulfide
with hexachlorocyclopentadiene. Zhur. ob. khim. 34 no.1:14-17
Ja '65. (RUSSIA 1214)

VASIL'YEV, G.S.; PRILEZHAYEVA, Ye.N.; BYSTROV, V.F.; SHOSTAKOVSKIY, M.F.

Structure of products of the reaction of (alkoxy) alkyltriacetylenes
with phosphorus pentachloride. Zhur. ob. khim. 35 no.8:1350-
1357 Ag '65. (MIRA 13:6)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.

L 2024-66 EWT(1)/EWT(m)/EWA(b)-2 RO

ACC NR: AP5022132

UR/0030/65/000/008/0035/0039
581.14:58.04

AUTHOR: Prilezhayeva, Ye. N. (Doctor of chemical sciences)

TITLE: Physiologically active compounds for plant cultivation 1/10

SOURCE: AN SSSR. Vestnik, no. 8, 1965, 35-39 12

TOPIC TAGS: agriculture, hormone, scientific research, research program, defoliant agent, herbicide, wheat

ABSTRACT: The article surveys the work on these compounds being conducted in the various research and testing institutes of the SSSR and describes new compounds which appear promising. Research in plant hormones (gibberellin and quinine), defoliants, and herbicides is described. Antigibberellin was synthesized at the Chemical Institute, AN Moldavian SSR. Tested in wheat, it was found to reduce growth without affecting yield, and to increase resistance to beating down and decrease moisture requirements. For the second phytohormone, interesting new compounds of a structure simpler than kinetin with quinine-like properties have been found, but no synthesis was accomplished. In basic work by the Institute of Organic Chemistry, AN SSSR, more than 600 preparations for herbicides and defoliants were delivered for screening to the All-Union Institute for Plant Protection (1963-64). The Institute of Organic Chemistry of the Ukrainian SSR founded a new

Card 1/2 40.55

L, 2021-66

ACC NR: AP5022132

laboratory for herbicide chemistry in 1964. The author feels that current research is stagnant and gives the following requirements for further development of physiologically active compounds: development of standards, a central testing center, search for new surfactants, a study of metabolism or regulators in the plant organism and their mechanism of action on several levels.(macroscopic, microscopic, plant development), and close contact between the various institutes. Orig. art. has: None.

ASSOCIATION: None.

SUBMITTED: 00

ENCL: 00

SUB CODE: LS, OC

NR REF SOV: 000

OTHER: 000

Card 2/2

SHABANOVA, M.P.; KAGAN, Yu.S.; PRILEZHAYEVA, Ye.N.; TSYMEAL, L.V.;
MAKHLINA, Ye.Ya.

Relationships between the structure of some esters of dialkyl-
dithiophosphoric acids and their toxicity for arthropods and
~~vamp~~-blooded animals. Trudy VIZR no. 21 pt.1:114-125 '64.
(MIRA 18:12)

L 29293-66 --EWP(j)/EWT(m)/T RM

SOURCE CODE: UR/0079/65/035/008/1350/1357

ACC NR: AP6019317

AUTHOR: Vasil'yev, G. S.; Prilezhayeva, Ye. N.; Bystrov, V. F.; Shostakovskiy, N. F.

ORG: Institute of Organic Chemistry im. N. D. Zelinsky, AN SSSR (Institut organicheskoy khimii AN SSSR)

TITLE: Structure of products of the reaction of (alkoxy)alkylthiobutenynes with phosphorus pentachloride

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1350-1357

TOPIC TAGS: phosphorus chloride, chemical reaction, proton resonance, organic sulfur compound

ABSTRACT: Synthesis by other methods and study of proton magnetic resonance spectra indicated that addition of PCl_5 to 1-alkylthio-(alkoxy)butenynes takes place at the triple carbon-carbon bond with the formation of chlorides of 1-alkylthio(alkoxy)-3-chlorobutadiene-1,3,4-phosphinic acids. It was established for the first time that addition of alcohols to diacetylene under the conditions

of a nucleophilic reaction proceeds stereospecifically with the formation of cis-1-alkoxybutenynes. The reaction of diacetylene with one molecule of a thiol ($MeSH$) under nucleophilic conditions also resulted in a product (1-Me-thiobutenyne) with a cis-structure. It was shown that in products of the addition of PCl_5 to

UDC: 547.261

Card 1/2

L 29293-66 -

ACC NR: AP6019317

1-alkylthio(alkoxy)butenynes the hydrogens at 1-C and 2-C are in a trans-position to each other. A mechanism of electrophilic interaction between PCl_5 and 1-alkylthio(alkoxy)butenynes is proposed which explains the cis-trans-isomerization that takes place in its course. Orig. art. has: 4 figures, 5 formulas, and 1 table. [JPRS]

SUB CODE: 07, 20 / SUBM DATE: 29Jun64 / ORIG REF: 007 / OTH REF: 010

Card 2/2 CC

PRILECHAYEVA, Ye.N., editor. 1966. 1966.

Significantly improved compounds for (live) speaking. Vest. AN SSSR
(MIRA 18:2)
35 no. 8:35-39 Ag 1966.

PRILEZHAYEVA, Ye.P.; PETUKHOVA, N.P.; SHOSTAKOVSKIY, M.F.

Reaction of dichlorocarbenes with vinyl sulfides. Dokl. AN SSSR
144 no.5:1059-1061 Je '62. (MIRA 15:6)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.
2. Chlen-korrespondent AN SSSR (for Shostakovskiy).
(Methylene) (Sulfides)

PRILIP.N.P., starshaya akusherka.

Head midwife's work. Fel'd. i akush. 28. no. 5:49-50 My '63.
(MIRA 16:7)

(MIDWIVES)

1. PRILIPA, N.
2. USSR (600)
4. Coal-Mining Machinery
7. Successful mastery of the UKMG-1 coal digger-and-loader, Mast.ugl. 2 no. 2 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

TERESHCHENKO, P.; SHAPOVAL, I.; GERMAN, D.; PRILIPCHUK, S.; ATAMANCHUK, I.

Yes, the whole matter is in ability. Grazhd. av. 21 no. 2:12-13
Ag '64. (MIRA 1964)

BERESLAVETS, F.G., inzh.; ZINENKO, A.G., inzh.; KUNIN, I.K., inzh.;
GRIBANOV, I.P., inzh.; PRILIPENKO, Ye.D., inzh.

Iron ore haulage out of the stope by vibrating conveyers. Met.
i gornourd. prom. no.3:83-85 My-Je '62. (MIRA 15:9)
(Conveying machinery)

PRILIPENKO, Ya.D., gornyy inzh.

Expedient limits for the use of hard ore breaking by
deep boreholes or by blasting charges. Gor.zhur. no.7:
47-50 J1 '60. (MIRA 13:7)

1. Nauchno-issledovatel'skiy gornorudnyy institut, Krivoy
Rog.
(Mining engineering)

RIVKIN, I.D. (Krivoy Rog); SHOSTAK, A.G. (Krivoy Rog); KUYEVDA, K.I. (Krivoy Rog); PRILIPENKO, Ye.D. (Krivoy Rog)

New innovation in the method of sublevel caving. Gor.zhur. no.2:
22-26 F '61. (MIRA 14:4)

(Mining engineering)

PRILIPKO, G.

On thin seams. Mast. ugl. 5 no.8:9 Ag '56.

(MLRA 9:11)

1. Mashinist kombayna shakhty "TSentral'no-Zavodskaya"
Glavyuzhdonbassuglya.

(Donets Basin--Coal mines and mining)

ROMANOVICH, V.S.; TRUBNIKO, I.I.; CHAYANOV, M.G.

New data on gas reservoirs in the lower anhydrite horizon
of the Shabelinka field. Neftgaz. geol. i geofiz. no.3:
32-36 '65. (MIRA 18:7)

1. Khar'kovskaya promyslovo-geofizicheskaya ekspeditsiya.

PANKRATOV, V.I.; PRILIPKO, I.T.

Contactless automatic beta-ray gage. Bum. prom. 33 no. 7:11-14
J1 '58. (MIRA 11:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut tsellyuloznoy
i bumazhnoy promyshlennosti.
(Beta rays--Industrial applications)
(Paper)

PANKRATOV, V.I.; PRILIPKO, I.T.

Electrodynamic capacitor-modulator of weak direct currents.
Izm. tekhn. no.12:30-32 D '63. (MIRA 16:12)

PRILIPKO, I.T., inzh.; FRIDMAN, M.Z., inzh.

Determination of cardboard resistance to punching. Bum.prom. 36
no.5:21 My '61. (MIRA 14:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut tsellyuloznoy
i bumashnoy promyshlennosti.
(Cardboard)

PRILIPKO, I.T.

Use of radiant energy in the paper industry. Sum. 1 ser. proz. no. 3:
50-53 J1-S '64. (MIRA 17:11)

USSR / Meadow Cultivation..

L

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24742

Author : Tutyak, V.; Prilipko, L.

Inst : Not given

Title : Concerning the Productivity Increase of
Azerbaijan's Pastures

Orig Pub : Sotz. s.-kh. Azerbaijan, 1958, No 4,
42-46

Abstract : The characteristics of the hay harvests and
pastures of Azerbaijan are determined. It
is reported that successful experiments of
bogaz [a designation for crops cultivated
in Central Asia without artificial irriga-
tion] sowings of broad-spiked wheat, woolly-
pod vetch, wheat mixed with alfalfa and
Caucasian esparcet were conducted on certain

Card 1/2

PRILIPKO, L. I.

30242

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